

SCOPE OF SERVICES
FOR
MAGNOLIA DRIVE & LAFAYETTE STREET
INTERSECTION ENGINEERING DESIGN

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SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES

HIGHWAY DESIGN

This Exhibit forms an integral part of the agreement between The City of Tallahassee (hereinafter referred to as the City) and _____ (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

DESCRIPTION

Lafayette Street from approximately 500 feet West of Magnolia to approximately 500 feet East of Magnolia in, Leon County

PURPOSE

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT and the City in connection with the design and preparation of a complete set of construction contract plans and special provisions, if necessary, for:

Intersection turn lane improvements to the transportation facility described herein

The general objective is for the CONSULTANT to prepare a set of plans to be used by the contractor to build the project, and by the City to ensure the project is built as designed and to specifications. Elements of work shall include roadways, intersections, geotechnical activities, surveys, drainage, signing and pavement markings, utility relocation, right-of-way maps and legal descriptions, maintenance of traffic, cost estimates, environmental permits, quantity computation books, and all necessary incidental items for a complete project.

The Scope of Services establishes which items of work described in the Plans Preparation Manual Volume 2 and other pertinent manuals to accomplish the work are specifically included in this contract, and also which of the items of work will be the responsibility of the CONSULTANT or the City.

All plans and design documents are to be prepared with Standard English values in accordance with all applicable City and other manuals and guidelines referenced herein.

The CONSULTANT shall be aware that as a project is developed, certain modifications and/or improvements to the original recommendation may be required. The CONSULTANT is to incorporate these refinements into the design and will consider this effort to be an anticipated and integral part of the work. This will not be a basis for any supplemental fee request(s).

The CONSULTANT shall demonstrate good project management practices while working on this project. These include communication with the City and others as necessary, management of time and resources, and documentation. The CONSULTANT shall set up and maintain throughout the design of the project a contract file in accordance with City procedures. It shall be the CONSULTANT's responsibility to utilize the very best engineering judgment, practices, and principles possible during the prosecution of the work commissioned under this contract.

The City will provide contract administration, management services, and technical reviews of all work associated with the development and preparation of the contract plans. The City will provide job-specific information and/or functions as outlined in this contract.

2 PROJECT DESCRIPTION

The CONSULTANT shall investigate the status of the projects and become familiar with concepts and commitments (typical sections, alignments, etc.) developed from prior studies. If a Preliminary Engineering Report is available from a prior or current Project Development and Environmental (PD&E) study, the CONSULTANT shall use the approved concepts as a basis for the design unless otherwise directed by the

City. Note: The following improvements relative to pavement widening for the turn lane modifications on the EB and WB approach legs to Magnolia have been identified as follows: 1) Extend the exiting EB left turn lane queue 100 feet; 2) Extend the existing WB left turn lane queue 50 feet. Milling and resurfacing of the existing pavement with provisions for cross slope correction. Continuity with existing sidewalk facilities will be maintained within the project limits. Additional modifications and permitting requirements pertinent to the above-described improvements are detailed in the following sections.

The CONSULTANT shall incorporate the following into the design of this facility:

2.1 Roadway

Plan Type: See Intersection Detail, below.

Typical Section: In as much as this is an Intersection Improvement there is not, by definition, a typical section. However the general makeup includes one through lane in each direction, EB and WB left turn lanes, EB right turn lane, curb and gutter and sidewalk on the south side of Lafayette.

Limits: Lafayette Street from approximately 500 feet west of Magnolia to approximately 500 feet east of Magnolia.

Intersection Detail: The project will require full plan detail of the proposed improvements as outlined in section 2 above and throughout this Scope. In addition a proposed profile meeting Florida Greenbook criteria will be required representing a best fit of the existing alignment. The intent is to provide for longitudinal improvements that will remove undulations in the profile, which would be transferred to the required widening and to define/re-define the crown point. Consideration should be given to milling and resurfacing for the final establishment of the profile.

Variations/Exceptions: Not Applicable to this project.

Back of Sidewalk Profiles: Provide back of sidewalk profiles through Phase III Plans or as directed by the City.

Level of TCP Plans: Level 2.

Temporary Signals: N/A.

Temporary Lighting: N/A.

Temporary Drainage: N/A

2.2 Drainage

The existing closed system will be analyzed to determine sufficiency for the added impervious areas. Curb inlets if required shall be located so as not to interfere with sidewalk ramps nor be placed within the radius returns where truck traffic may damage the inlet top. Any connections to existing systems must be permitted, when applicable, or at a minimum a determination must be rendered that the connection will not adversely affect the current performance. Modifications to the existing swale on the north side will also be necessary, a determination of swale volume capacity, respecting roadside CZ and slope requirements will be required.

The CONSULTANT shall determine the number and location of requisite stormwater facilities.

2.3 Utility Coordination

The following utility companies may have facilities within the proposed project limits.

City of Tallahassee: Gas, Electric, Water, Sewer and Traffic.

Sprint, AT&T and Comcast.

It is incumbent upon the CONSULTANT to verify all utility owners within the project limits.

2.4 Permits

The following permits are anticipated for this project.

NFI, EIA, COT Stormwater, COT Tree, and Dredge and Fill.

2.5 Structures

Bridges: N/A.

- Miscellaneous: Not applicable to this project

2.6 Signing and Pavement Markings

Signing and Pavement marking plan will be required requisite for the described improvements.

2.7 Signals

Intersections: Replacement of signal loops is anticipated due to milling and resurfacing.

Traffic Data Collection: N/A

Traffic Studies: N/A

Count Stations: N/A

2.8 Lighting (Not applicable to this project)

2.9 Landscape Architecture (Not applicable to this project)

2.10 Survey

Design Survey: By COT

Right of Way Survey: By COT.

2.11 Photogrammetry (Not applicable to this project)

2.12 Mapping By COT

2.13 Geotechnical

CONSULTANT shall be responsible for obtaining and classifying roadway soil samples for the roadway widening areas, stormwater facility and contamination evaluation. In addition the CONSULTANT shall obtain pavement cores for the preparation of the milling and resurfacing recommendation report.

2.14 Architecture (Not applicable to this project)**2.15 Joint Project Agreements** (Not applicable to this project)**2.16 Specifications Package**

By COT.

2.17 Project Schedule

Within ten (10) days after the Notice-To-Proceed, and prior to the CONSULTANT beginning work, the CONSULTANT shall provide a detailed project activity/event schedule for City and CONSULTANT activities. The schedule shall be accompanied by an anticipated payout and fiscal progress curve.

The schedule shall indicate all required submittals.

For purposes of scheduling, the CONSULTANT shall allow for the following City work activity and submittal review times, when applicable:

Work Activity/Submittal Review	Time (weeks)
Roadway Plans Review	4
Right of Way Needs (For Ponds)	6
(Phase II, PhaseIII)	8
(Phase IV, Final Plans)	8
Structures Plans Review	N/A
Bridge Hydraulics Report Review	N/A
Bridge Development Report Review	N/A
Alternative Drainage Design Concept Report Review	N/A
Pond Siting Report	6
Environmental Permitting Packages Review	4
Environmental Mitigation Plan Review	N/A
Jurisdictional Determination Report Review	4
Traffic Studies and Analysis Report Review	N/A
Preparation of Right-of-Way Documents Activity	10

Acquisition of Right-of-Way Activity (Pond)	68
Prepare/Execute Utility Agreements Activity	16
Landscape Development Plan	N/A

Periodically, throughout the life of the project, the schedule and curves shall be reviewed and, with the approval of the City, adjusted as necessary to incorporate changes in the work concept and progress to date.

The approved schedule and schedule status report, along with progress and payout curves, shall be submitted with the monthly progress report.

The schedule shall be submitted in Microsoft Project or system-compatible format.

2.18 Submittals

The CONSULTANT shall furnish plans and documents as required by the City to adequately control, coordinate, and approve the plans. The CONSULTANT shall distribute phase submittals as directed by the City.

The CONSULTANT shall provide copies of the required plans and documents as listed below. These are the anticipated printing requirements for the project. This tabulation will be used for estimating purposes. The Project Manager will determine the specific number of copies required prior to each submittal.

A COT Distribution Memo shall be attached to each submittal. The COT PM will provide the pertinent memo form after selection.

Department	Phase			
	I	II	III	IV
Growth Management		30	30	30

Engineering Documents

Document	No. of Copies Required
Roadway Design	
Typical Section Package	N/A
Pavement Type Selection Report	N/A
Pavement Design Report (Milling and Resurfacing Recommendations)	1
Design Documentation	4 Per Submittal
Computation Book	4 Per Submittal
CES Input	N/A
Technical Special Provisions	2
Access Management Reports	2
Lane Closure Analysis Worksheets	4

Engineering Documents

ATTACHMENT # 2
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Document	No. of Copies Required
3 R Reports	N/A
Drainage	
Preliminary Pond Siting Report	7
Final Pond Siting Report	3
Preliminary Bridge Hydraulics Report	N/A
Final Bridge Hydraulics Report	N/A
Drainage Design Documentation Report	2
Traffic Operations	
Traffic Report	N/A
Environmental Items	
NFI	4
EIA	4
Jurisdictional Determination Report	2
COT Stormwater Permit	4
Dredge and Fill	4
National Pollutant Discharge Elimination System (NPDES) Permit Application Package	4
Contamination Assessment	4
Design/Right-of-Way Surveys	COT
Geotechnical	
Roadway Report – Preliminary	N/A
Roadway Report – Final	2
Pond Report	2
Contamination Assessment	2
Other	
QC Plan	6
Schedule	6

2.19 Provisions for Work

All maps, plans and designs are to be prepared with English values in accordance with all applicable current City and FDOT manuals, memorandums, guidelines and other documents listed below.

- **General**
 - The Florida Department of Transportation Plans Preparation Manual Volume 2
 - The Florida Department of Transportation Standard Specifications for Road and Bridge Construction Current Year or as requested by the COT
 - Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, known as the "Florida Greenbook"
 - The Florida Department of Transportation Design Standards for Design, Construction, Maintenance, and Utility Operations on the State Highway System
 - Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways
 - Bicycle Facilities Planning and Design Manual, Rev. Ed. 1982
 - Florida Department of Transportation Basis of Estimates Manual
 - Any special instructions from the City
 - Utility Accommodations Guidelines
 - Policy for Geometric Design of Highways and Streets
- **Permits**
 - COT-NFI, EIA, Tree and Stormwater.
 - Other- Dredge and Fill
- **Drainage**
 - Drainage Manual
 - Drainage Handbooks
 - Erosion and Sediment Control
 - Temporary Drainage Handbook
- **Traffic Operation Manuals**
 - American Disabilities Act
 - Federal Highway Administration Standard Highway Signs Manual
 - National Electrical Code
 - National Electric Safety Code
 - Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCO)
- **Geotechnical**
 - Soils and Foundation Handbook
 - Manual of Florida Sampling and Testing Methods

2.20 Services to be Performed by the City

When appropriate the City will provide those services and materials as set forth below:

- Provide all Design and R/W surveying and R/W Mapping services.

- Regarding Environmental Permitting Services:
 - Approve all contacts with environmental agencies.
 - Provide general philosophies and guidelines of the City to be used in the fulfillment of this contract. Objectives, constraints, budgetary limitations, and time constraints will be completely defined by the Project Manager.
 - Provide the appropriate signatures on application forms.
- Provide phase reviews of roadway plans and reviews of all pertinent documents as detailed in section 2.18.
- Furnish an approved Environmental Document when available.
- Furnish all future information that may come to the City during the term of the CONSULTANT's Agreement, which in the opinion of the City is necessary for the prosecution of the work.
- Furnish available traffic and planning data.
- Furnish all approved utility relocations.
- Provide project utility certifications.
- Provide project data currently on file.
- Provide engineering standards and review services.
- Provide all available information in the possession of the City pertaining to utility companies whose facilities may be affected by the proposed construction.
- Provide all future information that may come to the City pertaining to subdivision plans so that the CONSULTANT may take advantage of additional areas that can be utilized as part of the existing right-of-way.
- Provide existing right-of-way maps.
- Furnish Completed Specification Package.

3 PROJECT GENERAL TASKS

Project General Tasks are applicable to the project as a whole and are described in Sections 3.1 through 3.6 of this Scope of Service.

PROJECT COMMON TASKS

Project Common Tasks are included in most activities, 4.0 Roadway Analysis through 31.0 Architectural Development, of the project. The tasks described here are to be preformed by the CONSULTANT when included in each Activity's section of the Scope of Services.

Cost Estimates: Once the quantities have been developed (no later than Phase III plans) the CONSULTANT shall be responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project. A Summary of Pay Items sheet shall be prepared with all required Phase II, III, IV and Final Plans submittals.

Technical Special Provisions: The CONSULTANT shall provide Technical Special Provisions for all items of work not covered by the Standard Specifications for Road and Bridge Construction and the COT implemented modifications.

Field Reviews: Includes all trips required to obtain necessary data for all elements of the project.

Technical Meetings: Includes meetings with City and/or Agency staff, between disciplines and subconsultants, such as access management meetings, pavement design meetings, local governments, railroad companies, progress review meetings (phase review), and miscellaneous meetings.

Quality Assurance/Quality Control: It is the intention of the City that design CONSULTANTS are held responsible for their work, including plans review. Detailed checking of CONSULTANT plans or assisting in designing portions of the project for the CONSULTANT is not the intent of having external design consultants. The purpose of CONSULTANT plan reviews is to ensure that CONSULTANT plans follow the applicable plan preparation procedures outlined in the Plans

Preparation Manual Volume 2, that state and federal design criteria are followed with the City concept, and that the CONSULTANT submittals are complete.

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all maps, design drawings, specifications, and other documentation prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project. The CONSULTANT shall submit a Quality Control Plan for approval within 20 (twenty) calendar days of the written Notice to Proceed. A marked up set of prints from a Quality Control Review indicating the reviewers for each component (structures, roadway, drainage, signals, geotechnical, signing and marking, lighting, surveys, etc.) and a written resolution of comments on a point-by-point basis will be required with each phase submittal. The responsible Professional Engineer, Landscape Architect, or Professional Surveyor that performed the Quality Control review will sign a statement certifying that the review was conducted.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in the designs, maps, drawings, specifications and/or other services.

Independent Peer Review: Not Applicable to this project.

Supervision: Includes all efforts required to supervise all technical design activities.

Coordination: Includes all efforts to coordinate with all disciplines of the project to produce a final set of construction documents.

3.1 Public Involvement

Public involvement is an important aspect of the project development process. Public involvement includes communicating to all interested persons, groups, and government organizations information regarding the development of the project. The CONSULTANT shall be required to participate in one Public meeting session. The CONSULTANT shall provide drawings on GIS Maps showing proposed improvements and modifications. The CONSULTANT shall be prepared to answer questions and provide minutes covering key issues and if any conclusions.

3.2 Joint Project Agreements (Not applicable to this project)

3.3 Specifications Package Preparation By COT

3.4 Contract Maintenance

Contract maintenance includes project management effort for complete setup and maintenance of files, developing monthly progress reports, schedule updates, work effort to develop and execute subconsultant agreements, etc.

3.5 Value Engineering (Multi-Discipline Team) Review (Not applicable to this project)**3.6 Prime Project Manager Meetings**

These meetings include Prime CONSULTANT Project Manager staff hours for phase review, progress review, all technical meetings, and other coordination activities, including any travel time. Meetings required for each activity are included in the meetings section for that specific activity.

4 ROADWAY ANALYSIS

The CONSULTANT shall analyze and document Roadway Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

4.1 Typical Section Package (Not applicable to this project)**4.2 Pavement Design Package**

The CONSULTANT shall prepare a milling and resurfacing recommendation report which will consider the condition and thickness of the existing pavement (pavement SN relative to milling and Traffic Control), cross slope and profile correction and the interface with the resurfaced section relative to the proposed widening section.

4.3 Access Management

The CONSULTANT shall review existing driveway conditions, which are detrimental to the L-O-S potential such as back out parking and potential right in right out scenarios. Recommendations shall be made for improving these conditions and included in the Design Documentation as well as sending under separate cover to the COT Project Manager.

4.4 Horizontal/Vertical Master Design Files

The CONSULTANT shall design the geometrics using the design standards that are most appropriate with proper consideration given to the design traffic volumes, design speed, capacity and levels of service, functional classification, adjacent land use, design consistency and driver expectancy, aesthetics, pedestrian and bicycle concerns, ADA requirements, elder road user policy, access management, PD&E documents and scope of work.

4.5 Cross Section Design Files

The CONSULTANT shall establish and develop cross section design files.

4.6 Traffic Control Analysis

The CONSULTANT shall design a safe and effective Traffic Control Plan to move vehicular and pedestrian traffic during all phases of construction. The design shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times. The design shall include construction phasing of roadways to accommodate the construction of utilities when the contract includes Joint Project Agreements (JPAs).

The CONSULTANT shall investigate the need for temporary traffic signals, temporary lighting, alternate detour roads, and the use of materials such as sheet piling in the analysis. A certified designer who has completed training as required by the FDOT shall prepare the Traffic Control Plan. Prior to proceeding with the Traffic Control Plan, the CONSULTANT shall meet with the appropriate City personnel. The purpose of this meeting is to provide information to the CONSULTANT that will better coordinate the Preliminary and Final Traffic Control Plan efforts.

4.7 Master TCP Design Files (Not applicable to this project)**4.8 Design Variations and Exceptions (Not applicable to this project)****4.9 Design Report**

The CONSULTANT shall prepare all applicable report(s) as listed in the Project Description section of this scope.

The CONSULTANT shall submit to the City design notes, data, and calculations to document the design conclusions reached during the development of the contract plans.

The design notes, data, and computations shall be recorded on size 8½"x11" sheets, fully titled, numbered, dated, indexed and signed by the designer and the checker. Computer output forms and other oversized sheets shall be folded to 8½"x11" size. The data shall be in a hardback folder for submittal to the City.

4.10 Computation Book and

The CONSULTANT shall prepare the Computation Book and various summary of quantities sheets. This includes all efforts required to develop the Computation Book and the supporting documentation, including construction days when required.

- 4.11 Cost Estimate
- 4.12 Technical Special Provisions
- 4.13 Field Reviews
- 4.14 Technical Meetings
- 4.15 Quality Control/Quality Assurance
- 4.16 Independent Peer Review (Not applicable to this project)
- 4.17 Supervision
- 4.18 Coordination

5 ROADWAY PLANS

The CONSULTANT shall prepare Roadway, Drainage, Traffic Control, Utility Adjustment Sheets, plan sheets, notes, and details. The plans shall, at a minimum, include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

- 5.1 Key Sheet
- 5.2 Summary of Pay Items Including Quantity Input
- 5.3 Drainage Map (Not applicable to this project)
- 5.4 Interchange Drainage Map (Not applicable to this project)
- 5.5 Typical Section Sheets (Not Applicable to this project)
- 5.6 General Notes/Pay Item Notes
- 5.7 Summary of Quantities
- 5.8 Box Culvert Data Sheet (Not applicable to this project)
- 5.9 Bridge Hydraulics Recommendation Sheets (Not applicable to this project)
- 5.10 Summary of Drainage Structures
- 5.11 Optional Pipe/Culvert Material (Not applicable to this project)
- 5.12 Project Layout (Not applicable to this project)
- 5.13 Plan/Profile Sheet (Not applicable to this project)
- 5.14 Profile Sheet
- 5.15 Plan Sheet (Not applicable to this project)
- 5.16 Special Profile
- 5.17 Back of Sidewalk Profile Sheet (Not applicable to this project)
- 5.18 Interchange Layout Sheet (Not applicable to this project)

- 5.19 Ramp Terminal Details (Plan View) (Not applicable to this project)
- 5.20 Intersection Layout Details
- 5.21 Miscellaneous Detail Sheets
- 5.22 Drainage Structure Sheet
- 5.23 Miscellaneous Drainage Detail Sheets
- 5.24 Lateral Ditch Plan/Profile
- 5.25 Lateral Ditch Cross Sections
- 5.26 Retention/Detention Ponds Detail Sheet
- 5.27 Retention Pond Cross Sections
- 5.28 Cross-Section Pattern Sheet (Not applicable to this project)
- 5.29 Roadway Soil Survey Sheet
- 5.30 Cross Sections
- 5.31 Traffic Control Plan Sheets
- 5.32 Traffic Control Cross Section Sheets (Not applicable to this project)
- 5.33 Traffic Control Detail Sheets
- 5.34 Utility Adjustment Sheets
- 5.35 Selective Clearing and Grubbing (Not applicable to this project)
- 5.36 Erosion Control Plan
- 5.37 SWPPP
- 5.38 Project Control Network Sheet (Not applicable to this project)
- 5.39 Interim Standards
- 5.40 Utility Verification Sheet (SUE Data) (Not applicable to this project)
- 5.41 Quality Assurance/Quality Control
- 5.42 Supervision

6 DRAINAGE ANALYSIS

The CONSULTANT shall analyze and document Drainage Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

The CONSULTANT shall be responsible for designing a drainage and stormwater management system. All design work shall comply with the requirements of the appropriate regulatory agencies and the FDOT Drainage Manual.

The CONSULTANT shall coordinate fully with the appropriate permitting agencies and the City's staff. All activities and submittals should be coordinated through the City's Project Manager. The work will include the engineering analyses for any or all of the following:

6.1 Determine Base Clearance Water Elevation

Analyze, determine, and document high water elevations, which will be used to set roadway profile grade or determine suitability of proposed base materials

6.2 Pond Siting Analysis and Report

6.3 Design of Cross Drains (Not applicable to this project)

6.4 Design of Roadway Ditches

6.5 Design of Outfalls

6.6 Design of Stormwater Management Facility (Offsite Pond)

6.7 Design of Stormwater Management Facility (Roadside Ditch as Linear Pond) (Not applicable to this project)

6.8 Design of Flood Plain Compensation Area (Not applicable to this project)

6.9 Design of Storm Drains

Develop a "working drainage map", determine runoff, inlet locations, and spread. Calculate hydraulic losses (friction, utility conflict and, if necessary, minor losses). Determine Design Tailwater and, if necessary, outlet scour protection.

6.10 Optional Culvert Material (Not applicable to this project)

6.11 French Drain Design (Not applicable to this project)

6.12 Drainage Wells (Not applicable to this project)

6.13 Drainage Design Documentation Report

Compile drainage design documentation into report format. Include documentation for all the drainage design tasks and associated meetings and decisions, except the Pond Siting Analysis Report and Bridge Hydraulics Report.

6.14 Bridge Hydraulic Report (Not applicable to this project)

6.15 Temporary Drainage Analysis

6.16 Cost Estimate

6.17 Technical Special Provisions (Not applicable to this project)

6.18 Field Reviews

6.18 Field Reviews (Not applicable to this project)

6.20 Quality Assurance/Quality Control

6.21 Independent Peer Review (Not applicable to this project)

6.22 Supervision

6.23 Coordination**7 UTILITIES**

The CONSULTANT shall identify utility facilities and secure agreements, utility work schedules, and plans from the Utility Agency Owners (UAO) ensuring no conflicts exist between utility facilities and the City's construction project. The CONSULTANT shall certify all utility negotiations have been completed with arrangements made for utility work to be undertaken.

7.1 Kickoff Meeting

Prior to any contact with the UAO(s), the CONSULTANT shall meet with the City Utility Coordinator (CUC) to receive guidance, as may be required, to assure that all necessary coordination will be accomplished in accordance with City procedures. CONSULTANT shall bring a copy of the design project work schedule reflecting utility activities.

7.2 Identify Existing UAO(s)

Identify all utilities in the corridor; coordinate with the CUC, check for Permits, Sunshine State One Call, Subsurface Utility Engineering (SUE) Report, Design Location Survey, and Existing Plans.

7.3 Make Utility Contacts

First Contact: Send letters and two sets of plans to each utility, one set for the CUC. Includes contact by phone for meeting coordination. Request type, size, location, easements, cost for compensable relocation, and justification for any utility exceptions. Include the meeting schedule (if applicable) and the design schedule. Include typical meeting agenda.

Second Contact: At a minimum of 2 weeks prior to the meeting, the CONSULTANT shall transmit two complete sets of Phase II plans to each UAO having facilities located within the project limits, and one set to the CUC.

Third Contact: Identify agreements and assemble packages. Send agreements, letters and two sets of plans to the UAO(s) including all component sets, one set for the utility office, one set to construction and maintenance if required. Include the design schedule. Not all projects will have all contacts as described above.

7.4 Exception Coordination (Not applicable for this project)**7.5 Preliminary Utility Meeting (Not applicable for this project)****7.6 Individual/Field Meetings**

The CONSULTANT shall meet with each UAO separately throughout the project design duration to provide guidance in the interpretation of plans, review changes to the plans and schedules, optional clearing and grubbing work, and assist in the development of the UAO(s) plans and work schedules. The CONSULTANT is responsible for motivating the UAO to complete and return the necessary documents after each Utility Contact or Meeting.

7.7 Collect and Review Plans and Data from UAO(s)

Make Determinations (Compensable Interest, Easements, Coordinate, Analyze). Ensure information (utility type, material and size) is sent to the designer for inclusion in the plans. Coordinate programming of funds.

7.8 Subordination of Easements Coordination (Not applicable for this project)**7.9 Utility Design Meeting**

At a minimum of 3 weeks prior to the meeting, the CONSULTANT shall transmit two complete sets of Phase II plans to each UAO having facilities located within the project limits, and one set to the CUC. The CONSULTANT shall schedule (time and place), notify participants, and conduct a Utility meeting with all affected UAO(s). The CONSULTANT shall be prepared to discuss drainage, traffic signalization, maintenance of traffic (construction phasing), review the current design schedule and letting date, evaluate the utility information collected, provide follow-up information on compensable interest requests, discuss the utility work by highway contractor option with each utility, discuss any future design issues that may impact utilities, etc., to the extent that they may have an effect on existing or proposed utility facilities with particular emphasis on drainage and maintenance of traffic with each UAO. The intent of this meeting shall be to identify and resolve conflicts between utilities and proposed construction prior to completion of the plans, including utility adjustment details. Also recommend resolution between known utility conflicts with proposed construction plans as practical. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees.

7.10 Review Utility Markups and Work Schedules and Processing of Schedules and Agreements

Review utility marked up plans individually as they are received for content and coordinate review with the designer. Send color markups and schedules to the CUC for review and comment if required. Coordinate programming of funds.

7.11 Utility Coordination/Followup

This includes follow-up, interpreting plans, and assisting and the completion of the UAO(s) work schedule and agreements. Includes phone calls, face-to-face meetings, etc., to motivate and ensure the UAO(s) complete and return the required documents in accordance with the project schedule. Ensure the resolution of all known conflicts. This task can be applied to all phases of the project.

7.12 Utility Constructability Review

Review utility schedules against construction contract time, and phasing for compatibility. Coordinate with COT PM.

7.13 Additional Utility Services (Not applicable for this project)

7.14 Processing Utility Work by Highway Contractor (UWHC) (Not applicable for this project)

7.15 Contract Plans to UAO(s)

This includes transmittal of the contract plans as processed for letting. Transmittals to UAO(s) are by certified mail, return receipt requested.

7.16 Certification/Close-Out

This includes hours for transmitting utility files to the CUC and preparation of the Utility Certification Letter. The CONSULTANT shall certify to the appropriate City representative the following:

All utility negotiations (Full execution of each agreement, approved Utility Work Schedules, technical special provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required for proper coordination with the physical construction schedule.

OR

An on-site inspection was made and no utility work will be involved.

OR

Plans were sent to the Utility Companies/Agencies and no utility work is required.

8 ENVIRONMENTAL PERMITS

The CONSULTANT shall notify the City Project Manager, Environmental Permit Coordinator and other appropriate personnel in advance of all scheduled meetings with the regulatory agencies to allow a City representative to attend. The CONSULTANT shall copy in the Project Manager and the Environmental Permit Coordinator on all permit related correspondence and meetings.

8.1 Preliminary Project Research

The CONSULTANT shall perform preliminary project research and shall be responsible for early identification of and coordination with the appropriate regulatory agencies to assure that design efforts are properly directed toward permit requirements.

8.2 Complete Permit Involvement Form (Not applicable for this project)**8.3 Establish Wetland Jurisdictional Lines**

The CONSULTANT shall collect all data and information necessary to determine the boundaries of wetlands and surface waters defined by the rules or regulations of each agency processing or reviewing a permit application necessary to construct a City project.

The CONSULTANT shall be responsible for, but not limited to, the following activities:

- Determine the jurisdictional boundaries of wetlands and surface waters as defined by rules or regulations of any other permitting authority that is processing a City permit application.
- Prepare aerial maps showing the jurisdictional boundaries of wetlands and surface waters. Aerial maps shall be reproducible, of a scale no greater than 1"=200' and be recent photography. The maps shall show the jurisdictional limits of each agency. Xerox copies of aerials are not acceptable. All jurisdictional boundaries are to be tied to the project's baseline of survey. When necessary, jurisdictional maps shall be signed and sealed by either a Registered Professional Engineer or a Registered Land Surveyor.
- Acquire written verification of jurisdictional lines from the appropriate environmental agencies.
- Prepare a written assessment of the current condition and relative value of the function being performed by wetlands and surface waters. Prepare data in tabular form which includes ID number for each wetland impacted, size of wetland to be impacted, type of impact and identify any wetland within the project limits that will not be impacted by the project.

8.4 Agency Verification of Wetland Data

The CONSULTANT shall be responsible for verification of wetland data identified in Section 8.3 and coordinating regulatory agency field reviews, including finalization of wetland assessments with applicable agencies.

8.5 Complete and Submit All Required Permit Applications

The CONSULTANT shall prepare permit packages as identified in the Project Description section.

The CONSULTANT shall collect all of the data and information necessary to obtain the environmental permits required to construct a project.

The CONSULTANT shall prepare each permit application for City approval in accordance with the rules and/or regulations of the environmental agency responsible for issuing a specific permit and/or authorization to perform work.

- 8.6 **Prepare Dredge and Fill Sketches**
- 8.7 **Prepare USCG Permit Sketches** (Not applicable for this project)
- 8.8 **Prepare Easement Sketches** (Not applicable for this project)
- 8.9 **Prepare Right-of-Way Occupancy Sketches** (Not applicable for this project)
- 8.10 **Cultural Resource Assessment** Although not anticipated this shall be identified as an Optional Service.
- 8.11 **Prepare Tree Permit Information**
- 8.12 **Mitigation Coordination and Meetings** (Not applicable for this project)
- 8.13 **Mitigation Design** (Not applicable for this project)
- 8.14 **Contamination Evaluation**
- 8.15 **Technical Meetings**
- 8.16 **Quality Assurance/Quality Control**
- 8.17 **Supervision**
- 8.18 **Coordination**

- 9 **STRUCTURES - SUMMARY AND MISCELLANEOUS TASKS AND DRAWINGS** and task 9.1 – 9.15 are not applicable for this project.

- 10 **STRUCTURES - BRIDGE DEVELOPMENT REPORT** and tasks 10.1 – 10.48 are not applicable for this project.

- 11 **STRUCTURES - TEMPORARY BRIDGE** and tasks 11.1 – 11.8 are not applicable for this project.

- 12 **STRUCTURES - SHORT SPAN CONCRETE BRIDGE** and tasks 12.1 – 12.28 are not applicable for this project.

- 13 **STRUCTURES - MEDIUM SPAN CONCRETE BRIDGE** and tasks 13.1 – 13.53 are not applicable for this project.

- 14 **STRUCTURES - STRUCTURAL STEEL BRIDGE** and tasks 14.1 – 14.61 are not applicable for this project.

- 15 **STRUCTURES - SEGMENTAL CONCRETE BRIDGE** and tasks 15.1 – 15.78 are not applicable for this project.

- 16 **STRUCTURES - MOVABLE SPAN** and tasks 16.1 – 16.102 are not applicable for this project.

17 STRUCTURES - RETAINING WALL and tasks 17.1 – 17.21 are not applicable for this project.

18 STRUCTURES - MISCELLANEOUS and tasks 18.1 – 18.19 are not applicable for this project.

19 SIGNING AND PAVEMENT MARKING ANALYSIS

The CONSULTANT shall analyze and document Signing and Pavement Markings Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

19.1 Traffic Data Analysis (Not applicable for this project)

19.2 No Passing Zone Study (Not applicable for this project)

19.3 Reference and Master Design File

The CONSULTANT shall prepare the Signing & Marking Design file to include all necessary design elements and all associated reference files.

19.4 Multi-Post Sign Support Calculations (Not applicable for this project)

19.5 Sign Panel Design Analysis (Not applicable for this project)

19.6 Sign Lighting/Electrical Calculations (Not applicable for this project)

19.7 Quantities

19.8 Computation Book

19.9 Cost Estimates

19.10 Technical Special Provisions (Not applicable for this project)

19.11 Field Reviews (Not applicable for this project)

19.12 Technical Meetings

19.13 Quality Assurance/Quality Control

19.14 Independent Peer Review (Not applicable for this project)

19.15 Supervision

20 SIGNING AND PAVEMENT MARKING PLANS

The CONSULTANT shall prepare a set of Signing and Pavement Marking Plans in accordance with the Plans Preparation Manual that includes the following.

20.1 Key Sheet (Not applicable for this project)

20.2 Summary of Pay Items

20.3 Tabulation of Quantities

20.4 General Notes/Pay Item Notes

- 20.5 **Project Layout** (Not applicable for this project)
- 20.6 **Plan Sheet**
- 20.7 **Typical Details** (Not applicable for this project)
- 20.8 **Guide Sign Work Sheet(s)** (Not applicable for this project)
- 20.9 **Traffic Monitoring Site** (Not applicable for this project)
- 20.10 **Cross Sections** (Not applicable for this project)
- 20.11 **Special Service Point Details** (Not applicable for this project)
- 20.12 **Special Details** (Not applicable for this project)
- 20.13 **Interim Standards**
- 20.14 **Quality Assurance/Quality Control**
- 20.15 **Supervision**

21 **SIGNALIZATION ANALYSIS** (Not applicable to this project)

22 **SIGNALIZATION PLANS**

The CONSULTANT shall prepare a set of Signalization Plans in accordance with the Plans Preparation Manual, which includes the following.

- 22.1 **Key Sheet** (Not applicable for this project)
- 22.2 **Summary of Pay Items**
- 22.3 **Tabulation of Quantities**
- 22.4 **General Notes/Pay Item Notes**
- 22.5 **Plan Sheet**
- 22.6 **Interconnect Plans** (Not applicable for this project)
- 22.7 **Traffic Monitoring Site** (Not applicable for this project)
- 22.8 **Guide Sign Worksheet** (Not applicable for this project)
- 22.9 **Special Details** (Not applicable for this project)
- 22.10 **Special Service Point Details** (Not applicable for this project)
- 22.11 **Mast Arm/Monotube Tabulation Sheet** (Not applicable for this project)
- 22.12 **Strain Pole Schedule** (Not applicable for this project)
- 22.13 **TCP Signal (Temporary)** (Not applicable for this project)

22.14 Temporary Detection Sheet (Not applicable for this project)

22.15 Utility Conflict Sheet (Not applicable for this project)

22.16 Interim Standards

22.17 Quality Assurance/Quality Control

22.18 Supervision

23 LIGHTING ANALYSIS and tasks 23.1 – 23.17 are not applicable for this project.

24 LIGHTING PLANS and tasks 24.1 – 24.14 are not applicable for this project.

25 LANDSCAPE ARCHITECTURE ANALYSIS and tasks 25.1 – 25.14 are not applicable for this project.

26 LANDSCAPE ARCHITECTURE PLANS and tasks 26.1 – 26.15 are not applicable for this project.

27 SURVEY

and task 27.1 through 27.35 are to be performed by the COT.

28 PHOTOGRAMMETRY.

and tasks 28.1 – 28.25 are not applicable for this project

29 MAPPING.

and task 29.1 through 29.35 are to be performed by the COT

30 GEOTECHNICAL

The CONSULTANT shall be responsible for a complete geotechnical investigation for Roadway Pond site(s), and contamination assessments. In addition the CONSULTANT shall obtain pavement cores for the preparation of the milling and resurfacing recommendation report. All work performed by the CONSULTANT shall be in accordance with FDOT standards.

30.1 Document Collection and Review

CONSULTANT will review printed literature including topographic maps, county agricultural maps, aerial photography (including historic photos), ground water resources, geology bulletins, potentiometric maps, pile driving records, historic construction records and other geotechnical related resources. Prior to field reconnaissance, CONSULTANT shall review U.S.G.S., S.C.S. and potentiometric maps, and identify areas with problematic soil and groundwater conditions.

Roadway

The CONSULTANT shall be responsible for coordination of all geotechnical related fieldwork activities. The CONSULTANT shall retain all samples until acceptance of Phase IV plans. Obtain pavement cores as directed in writing by the CONSULTANT.

CONSULTANT shall perform specialized field-testing as required by project needs. All laboratory testing and classification will be performed in accordance with applicable FDOT standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

30.2 Detailed Boring Location Plan Not applicable to the project.**30.3 Stake Borings/Utility Clearance**

Stake borings and obtain utility clearance.

30.4 MOT Plans for Field Investigation

Coordinate and develop Maintenance of Traffic (MOT) plan. All work zone traffic control will be performed in accordance with the FDOT Roadway and Traffic Design Standards Index 600 series.

30.7 Contamination Assessment Evaluate Limits of contamination relative to anticipated excavation limits. This shall be identified as an *Optional Service*.**30.8 LBR Sampling** (Not applicable for this project)**30.9 Coordination of Field Work**

Coordinate all field work required to provide geotechnical data for the project.

30.10 Soil Classification**30.11 Design LBR** (Not applicable for this project)**30.12 Laboratory Data** (Not applicable for this project)**30.13 Seasonal High Water Table**

Review the encountered ground water levels and estimate seasonal high ground water levels. Estimate seasonal low ground water levels, if requested.

30.15 Limits of Unsuitable Material

Delineate limits of unsuitable material(s) in both horizontal and vertical directions. Assist the Engineer of Record with detailing these limits on the cross-sections. If requested, prepare a plan view of the limits of unsuitable material.

30.16 ASCII Files for Cross-Sections

Create ASCII files of boring data for cross-sections.

30.17 Stormwater Volume Recovery and/or Background Seepage Analysis

30.18 Geotechnical Recommendations

Provide geotechnical recommendations regarding the proposed roadway construction project including the following: description of the site/alignment, design recommendations and discussion of any special considerations (i.e. removal of unsuitable material, consolidation of weak soils, estimated settlement time/amount, groundwater control, high groundwater conditions relative to pavement base, etc.) Evaluate and recommend types of geosynthetics and properties for various applications, as required.

30.19 Preliminary Report (Not applicable for this project)

30.20 Final Report

The Final Roadway Report shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to FDOT Standard Indices 500 and 505.
- Results of all tasks discussed in the previous section (Data Interpretation and Analysis).
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.
- The CONSULTANT will respond in writing to any changes and/or comments from the City and submit any responses and revised reports.

30.21 Auger Boring Drafting (Not applicable for this project)

30.22 SPT Boring Drafting (Not applicable for this project)

Structures and tasks 30.24 – 30.52 are not applicable for this project.

31 ARCHITECTURE DEVELOPMENT and tasks 31.1 – 31.55 are not applicable for this project.

32 PROJECT REQUIREMENTS (Not applicable for this project)